

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB 03/02912

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01Q19/30 H01Q19/32 H01Q1/24 H01Q3/24 H01Q21/29  
H04B7/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01Q H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	HAMER M ET AL: "Experimental vehicular angle-diversity antenna using mutual coupling" PROCEEDINGS OF THE ANTENNAS AND PROPAGATION SOCIETY INTERNATIONAL SYMPOSIUM (APSIS). CHICAGO, JULY 20 - 24, 1992, NEW YORK, IEEE, US, vol. 2, 18 July 1992 (1992-07-18), pages 1089-1092, XP010066055 ISBN: 0-7803-0730-5 the whole document ---	1-5
P, X, L	WO 03 049 321 A (DOLMANS WILHELMUS M C ;LEYTEN LUKAS (NL); BERGERVOET JOZEF R M (NL) 12 June 2003 (2003-06-12) the whole document (L:priority) ---	1-4 -/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

Date of mailing of the international search report

21 November 2003

02/12/2003

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 902 498 A (MITSUBISHI ELECTRIC CORP) 17 March 1999 (1999-03-17) paragraphs '0006!-'0008!, '0029! ---	1-5
A	SCOTT N L ET AL: "DIVERSITY GAIN FROM A SINGLE-PORT ADAPTIVE ANTENNA USING SWITCHED PARASITIC ELEMENTS ILLUSTRATED WITH A WIRE AND MONPOLE PROTOTYPE" IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, IEEE INC. NEW YORK, US, vol. 47, no. 6, June 1999 (1999-06), pages 1066-1070, XP000845955 ISSN: 0018-926X cited in the application section II ---	1-5
A	EP 1 030 401 A (MATSUSHITA ELECTRIC IND CO LTD) 23 August 2000 (2000-08-23) paragraphs '0023!-'0037!; figure 1 ---	1-5
A	US 3 743 941 A (REUDINK D ET AL) 3 July 1973 (1973-07-03) abstract ---	5
A	DEVLIN L M ET AL: "A 2.4 GHz single chip transceiver" MICROWAVE AND MILLIMETER-WAVE MONOLITHIC CIRCUITS SYMPOSIUM, 1993. DIGEST OF PAPERS., IEEE 1993 ATLANTA, GA, USA 14-15 JUNE 1993, NEW YORK, NY, USA, IEEE, US, 14 June 1993 (1993-06-14), pages 23-26, XP010069076 ISBN: 0-7803-1322-4 abstract -----	5

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Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 03049321	A	12-06-2003	WO	03049321 A1		12-06-2003
EP 0902498	A	17-03-1999	WO	9842041 A1		24-09-1998
			AU	1942697 A		12-10-1998
			DE	69717806 D1		23-01-2003
			DE	69717806 T2		06-11-2003
			EP	0902498 A1		17-03-1999
			JP	3399545 B2		21-04-2003
			US	6049310 A		11-04-2000
EP 1030401	A	23-08-2000	EP	1030401 A1		23-08-2000
			US	6211830 B1		03-04-2001
			WO	9965108 A1		16-12-1999
US 3743941	A	03-07-1973	CA	993519 A1		20-07-1976
			DE	2252195 A1		03-05-1973
			GB	1352798 A		08-05-1974
			JP	48052316 A		23-07-1973
			JP	52038692 B		30-09-1977